



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
-----------------	-------------	----------------------	---------------------	------------------

10/694,148

10/27/2003

Francis Parsche

GCSD-1477(51337)

3028

27975

7590

12/09/2005

ALLEN, DYER, DOPPELT, MILBRATH & GILCHRIST P.A.
1401 CITRUS CENTER 255 SOUTH ORANGE AVENUE
P.O. BOX 3791
ORLANDO, FL 32802-3791

EXAMINER

CHEN, SHIH CHAO

ART UNIT

PAPER NUMBER

2821

DATE MAILED: 12/09/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/694,148

Applicant(s)

PARSCHE, FRANCIS

Examiner

Shih-Chao Chen

Art Unit

2821

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 03 October 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-19 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 20-29 is/are allowed.
- 6) ☒ Claim(s) 1-6 and 11-15 is/are rejected.
- 7) ☒ Claim(s) 7-10 and 16-19 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 04 December 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Specification

1. The disclosure is objected to because of the following informalities: on page 9, line 31, "1/22 wavelengths" should be changed to --1/2 wavelength--.

Appropriate correction is required.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

3. Claims 1 is rejected under 35 U.S.C. 102(e) as being anticipated by Rossman et al. (U.S. Patent No. 6,812,902).

Regarding claim 1, Rossman et al. teaches in figure 10 an antenna comprising: a radiating ring element [302] formed as a substantially solid spherical sector (See col. 10, lines 58-59) having about a one-half wavelength circumference in natural resonance for obtaining uniform current distribution and enhancing the gain relative to the size of the antenna.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

Art Unit: 2821

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claim 2 is rejected under 35 U.S.C. 103(a) as being unpatentable over Rossman et al. (Cited above).

Rossman et al. discloses the claimed invention except for the diameter of the radiating ring element is about twice its height. It would have been an obvious matter of design choice to have the diameter is about twice its height, since such a modification would have involved a mere change in the size of a component. A change in size is generally recognized as being within the level of ordinary skill in the art.

6. Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over Rossman et al. (Cited above).

Rossman et al. discloses the claimed invention except for the spherical sector comprises a one-third pi sector of a sphere. It would have been an obvious matter of design choice to have the one-third pi sector of a sphere, since such a modification would have involved a mere change in the shape of a component. A change in shape is generally recognized as being within the level of ordinary skill in the art.

7. Claims 4-6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Rossman et al. (Cited above) in view of Mimura et al. (U.S. Patent No. 6,600,451).

Rossman et al. teaches every feature of the claimed invention except for the radiating ring element includes a capacitive element; the radiating ring element has a gap; and a capacitor mounted within the gap.

Mimura et al. teaches in figures 3-14 the radiating ring element [701, 702] includes a capacitive element [706, 707]; the radiating ring element has a gap (See Fig. 12); and a capacitor [706, 707] mounted within the gap.

In view of the above statement, it would have been obvious to one having ordinary skill in the art at the time the invention was made by using the capacitive element and gap as taught by Mimura et al. in order to forming a resonator for resonance in a half-wavelength mode (See Abstract).

8. Claims 11 and 14-15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Rossman et al. (Cited above) in view of Mimura et al. (Cited above).

Rossman et al. teaches every feature of the claimed invention except for a radiating ring element having a capacitive element; the radiating ring element has a gap; and a capacitor mounted within the gap.

Mimura et al. teaches in figures 3-14 a radiating ring element [701, 702] having a capacitive element [706, 707]; the radiating ring element has a gap (See Fig. 12); and a capacitor [706, 707] mounted within the gap.

In view of the above statement, it would have been obvious to one having ordinary skill in the art at the time the invention was made by using the capacitive element and gap as taught by Mimura et al. in order to forming a resonator for resonance in a half-wavelength mode (See Abstract).

9. Claim 12 is rejected under 35 U.S.C. 103(a) as being unpatentable over Rossman et al. (Cited above) in view of Mimura et al. (Cited above).

Rossman et al and Mimura et al.. disclose the claimed invention except for the diameter of the radiating ring element is about twice its height. It would have been an obvious matter of design choice to have the diameter is about twice its height, since such a modification would have involved a mere change in the size of a component. A change in size is generally recognized as being within the level of ordinary skill in the art.

10. Claim 13 is rejected under 35 U.S.C. 103(a) as being unpatentable over Rossman et al. (Cited above) in view of Mimura et al. (Cited above).

Rossman et al. and Mimura et al. disclose the claimed invention except for the spherical sector comprises a one-third pi sector of a sphere. It would have been an obvious matter of design choice to have the one-third pi sector of a sphere, since such a modification would have involved a mere change in the shape of a component. A change in shape is generally recognized as being within the level of ordinary skill in the art.

Allowable Subject Matter

11. Claims 20-29 are allowed.

12. Claims 7-10 and 16-19 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

13. The following is a statement of reasons for the indication of allowable subject matter: (See Office action mailed on 06/29/2005).

Response to Arguments

14. Applicant's arguments with respect to claims 1 and 11 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

15. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Correspondence

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Shih-Chao Chen whose telephone number is (571) 272-1819. The examiner can normally be reached on Monday-Friday from 7 AM to 4:30 PM, First Fri. off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Don Wong can be reached on (571) 272-1834. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Shih-Chao Chen
Primary Examiner
Art Unit 2821

SHIH-CHAO CHEN
PRIMARY EXAMINER

SXC
November 29, 2005